Amendments to the Claims:

1   1.   (currently amended) A method for plotting a network topology using a markup

2   language, comprising the steps of:

3   retrieving first topology information from a data source in response to a request for a

4   first graphic display, wherein the first topology information represents a first

5   portion of a network topology that comprises graphical images that represent

6   nodes and connections between nodes;

7   converting the first topology information into a markup language document wherein

8   the markup language document is associated with a document type definition

9   that defines how to process information in the markup language document to

10   plot a graph based on the information;

11   plotting a graph of the first portion of the topology, based on the first topology

12   information in the markup language document;

13   causing display of the graph of the first portion of the topology on a display device;

14   after causing display of the graph of the first portion of the topology, and in response

15   to an interaction with a graphical image from the graph of the first portion of

16   the topology, automatically retrieving second topology information from the

17   data source, wherein the second topology information represents a second

18   portion of the network topology;

19   <u>converting the second topology information into a markup language document</u>

20   <u>associated with the document type definition and plotting a graph of the</u>

21   <u>second portion of the topology based on the second topology information in</u>

22   <u>the markup language document;</u> and

23   causing display of a graph of (a) at least a portion of the first portion based on the first

24   topology information and (b) the second portion of the topology based on the

25   second topology information, without retrieving again the first topology

26   information from the data source and plotting again the graph of the first

27   portion of the topology.

1   2-3.   (canceled)

1   4.   (previously presented) The method of claim 1 wherein the first topology information

2   as the markup language document includes

3   image information for specifying a graphical image representing a focus entity for

4   plotting in the graph of the first portion of the topology,

5   label information for specifying a label associated with the graphical image for

6   plotting in the graph of the first portion of the topology,

7   connection information for specifying one or more connections between the graphical

8   image and one or more secondary graphical images; and

9   wherein the step of plotting the graph of the first portion of the topology is performed

10   based on the image information, the label information, and the connection

11   information.

1   5.   (previously presented) The method of claim 4 wherein the step of plotting the graph

2   of the first portion of the topology is performed according to a display arrangement in

3   which the graphical image is substantially centered on the display device with the one

4   or more secondary graphical images connected to the graphical image in a generally

5   circular pattern.

1   6.   (previously presented) The method of claim 4 wherein the first topology information

2   as the markup language document further includes one or more of:

3   tool tip information for specifying information to display on the display device upon a

4   first interaction with the graphical image,

5   click action information for specifying an action to perform upon a second interaction

6   with the graphical image,

7   menu information for specifying a menu to display on the display device upon a third

8   interaction with the graphical image; and

9   wherein the step of receiving the first topology information is according to the

10   markup language document.

1   7.   (previously presented) The method of claim 4 wherein the first topology information

2   as the markup language document further includes

3   menu information for specifying a menu to display on the display device upon a first

4   interaction with the one or more connections; and

5   wherein the step of receiving the first topology information is according to the

6   markup language document.

1   8.   (previously presented) The method of claim 1 wherein the step of plotting the graph

2   of the first portion of the topology is performed according to one specified display

3   arrangement from a plurality of available display arrangements.

1   9.   (previously presented) A method for displaying portions of a network topology,

2   comprising the steps of:

3   converting network topology information into a first markup language document,

4   wherein the markup language document is associated with a document type

5   definition that defines how to process information in the markup language

6   document to plot a graph, wherein the markup language document includes

7   graph information specifying display attributes for plotting a first portion of

8   the network topology;

9   network node information, the node information including

10   image information for specifying a graphical image representing a first

11   node for display on a display device,

12   node label information for specifying a node label associated with the

13   graphical image for display on the display device,

14   network node connection information specifying a connection between

15   graphical images and representing a network link between the first

16   node and a second node;

17   plotting the first portion of the network topology based on the first markup language

18   document and associated document type definition;

19   displaying on the display device, as part of the first portion of the network topology,

20   the graphical image and the node label for the first node, according to the

21   node information and the graph information;

22   displaying on the display device, as part of the first portion of the network topology,

23   the connection between the graphical image representing the first node and at

24   least a second graphical image representing the second node, according to the

25   node connection information and the graph information;

26   after displaying the graphical image, the node label and the connection, and in

27   response to an interaction with a graph of the first portion of the network

28   topology, retrieving a second markup language document associated with the

29   document type definition, wherein the second markup language document

30   corresponds to a second portion of the network topology; and

31   causing display of a graph of (a) at least a portion of the first portion and (b) the

32   second portion, without again plotting the first portion of the network

33   topology.

1   10.   (original) The method of claim 9 wherein the network node information further

2   includes one or more of the following:

3   tool tip information for specifying information to display on the display device upon a

4   first interaction with the graphical image,

5 click action information for specifying an action to perform upon a second interaction

6   with the graphical image,

7 menu information for specifying a menu to display on the display device upon a third

8   interaction with the graphical image; and

9 the method further comprises the step of:

10 enabling functions initiated by each of the first interaction, the second interaction, and

11   the third interaction.

1 11. (original) The method of claim 10 wherein the function initiated by the third

2 interaction includes retrieving a file for displaying information about one or more

3 network links between the first node and one or more nodes connected to the first

4 node.

1 12. (original) The method of claim 10 wherein the function initiated by the third

2 interaction includes retrieving a file for displaying information about one or more

3 routers associated with the first node.

1 13. (original) The method of claim 10 wherein the function initiated by the third

2 interaction includes retrieving a file for displaying information about one or more

3 subnetworks associated with the first node.

1 14. (original) The method of claim 9 wherein the steps of displaying the graphical image

2 and the node label and displaying the connection are performed according to one

3 specified display arrangement from a plurality of available display arrangements.

1 15. (original) The method of claim 9 wherein the steps of displaying the graphical image

2 and the node label and displaying the connection are performed such that the

3 graphical image is substantially centered on the display element of the display device.

1   16.   (original) The method of claim 9 wherein the step of displaying the graphical image
2   and the node label is performed such that graphical image size is related to the
3   number of connections to the graphical image.

1   17.   (original) The method of claim 9 wherein the network node connection information
2   includes connection label information for specifying a label associated with the
3   connection and wherein the step of displaying the connection includes displaying the
4   connection label.

1   18.   (original) The method of claim 17 wherein the connection label information includes
2   a cost parameter label that reflects the bandwidth capacity of the network link
3   represented by the connection.

1   19.   (original) The method of claim 9 wherein the connection information includes
2   menu information for specifying a menu to display on the display device upon an
3   interaction with the connection; and
4   the method further comprises the step of:
5   enabling a function initiated by the interaction.

1   20.   (currently amended) A computer-readable medium carrying one or more sequences of
2   instructions for plotting a network topology using a markup language, wherein
3   execution of the one or more sequences of instructions by one or more processors
4   causes the one or more processors to perform steps of:
5   retrieving first topology information from a data source in response to a request for a
6   first graphic display, wherein the first topology information represents a first
7   portion of a network topology that comprises graphical images that represent
8   nodes and connections between nodes;
9   converting the first topology information into a markup language document, wherein
10   the markup language document is associated with a document type definition

11   that defines how to process information in the markup language document to

12   plot a graph based on the information;

13   plotting a graph of the first portion of the topology, based on the first topology

14   information in the markup language document;

15   causing display of the graph of the first portion of the topology on a display device;

16   after causing display of the graph of the first portion of the topology, and in response

17   to an interaction with a graphical image from the graph of the first portion of

18   the topology, automatically retrieving second topology information from the

19   data source, wherein the second topology information represents a second

20   portion of the network topology;

21   <u>converting the second topology information into a markup language document</u>

22   <u>associated with the document type definition and plotting a graph of the</u>

23   <u>second portion of the topology based on the second topology information in</u>

24   <u>the markup language document;</u> and

25   causing display of a graph of (a) at least a portion of the first portion based on the first

26   topology information and (b) the second portion of the topology based on the

27   second topology information, without retrieving again the first topology

28   information from the data source and plotting again the graph of the first

29   portion of the topology.

1   21.   (previously presented) The computer-readable medium of claim 20 wherein the first

2   topology information as the markup language document includes

3   image information for specifying a graphical image representing a focus entity for

4   plotting in the graph of the first portion of the topology,

5   label information for specifying a label associated with the graphical image for

6   plotting in the graph of the first portion of the topology,

7   connection information for specifying one or more connections between the graphical

8   image and one or more secondary graphical images; and

9   wherein execution of the one or more sequences of instructions by one or more

10   processors causes the one or more processors to perform the step of plotting

11   the graph of the first portion of the topology based on the image information,

12   the label information, and the connection information.

1   22.   (previously presented) A computer-readable medium carrying one or more sequences

2   of instructions for displaying portions of a network topology, wherein execution of

3   the one or more sequences of instructions by one or more processors causes the one or

4   more processors to perform steps of:

5   converting network topology information into a first markup language document,

6   wherein the markup language document is associated with a document type

7   definition that defines how to process information in the markup language

8   document to plot a graph, wherein the markup language document includes

9   graph information specifying display attributes for plotting a first portion of

10   the network topology;

11   network node information, the node information including

12   image information for specifying a graphical image representing a first

13   node for display on a display device,

14   node label information for specifying a node label associated with the

15   graphical image for display on the display device,

16   network node connection information specifying a connection between

17   graphical images and representing a network link between the first

18   node and a second node;

19   plotting the first portion of the network topology based on the first markup language

20   document and associated document type definition;

21   displaying on the display device, as part of the first portion of the network topology,

22   the graphical image and the node label for the first node, according to the

23   node information and the graph information;

24   displaying on the display device, as part of the first portion of the network topology,

25   the connection between the graphical image representing the first node and at

26   least a second graphical image representing the second node, according to the

27   node connection information and the graph information;

28   after displaying the graphical image, the node label and the connection, and in

29   response to an interaction with a graph of the first portion of the network

30   topology, retrieving a second markup language document associated with the

31   document type definition, wherein the second markup language document

32   corresponds to a second portion of the network topology; and

33   causing display of a graph of (a) at least a portion of the first portion and (b) the

34   second portion, without again plotting the first portion of the network

35   topology.

1   23.   (original) The computer-readable medium of claim 22 wherein the network node

2   connection information includes connection label information for specifying a label

3   associated with the connection and wherein execution of the one or more sequences

4   of instructions by one or more processors causes the one or more processors to

5   perform the step of displaying the connection including displaying a label

6   representing a cost parameter that reflects the bandwidth capacity of the network link

7   associated with the connection.

1   24.   (currently amended) A computer system comprising:

2   a network interface;

3   a memory; and

4   one or more processors connected to the network interface, the one or more

5   processors configured for

6   retrieving first topology information from a data source in response to a

7   request for a first graphic display, wherein the first topology

8   information represents a first portion of a network topology that

9   comprises graphical images that represent nodes and connections

10   between nodes;

11   converting the first topology information into a markup language document,

12   wherein the markup language document is associated with a document

13   type definition that defines how to process information in the markup

14   language document to plot a graph based on the information;

15   plotting a graph of the first portion of the topology, based on the first topology

16   information in the markup language document;

17   causing display of the graph of the first portion of the topology on a display

18   device;

19   after causing display of the graph of the first portion of the topology, and in

20   response to an interaction with a graphical image from the graph of the

21   first portion of the topology, automatically retrieving second topology

22   information from the data source, wherein the second topology

23   information represents a second portion of the network topology;

24   <u>converting the second topology information into a markup language document</u>

25   <u>associated with the document type definition and plotting a graph of</u>

26   <u>the second portion of the topology based on the second topology</u>

27   <u>information in the markup language document;</u> and

28   causing display of a graph of (a) at least a portion of the first portion based on

29   the first topology information and (b) the second portion of the

30   topology based on the second topology information, without retrieving

31   again the first topology information from the data source and plotting

32   again the graph of the first portion of the topology.

1   25.   (previously presented) An apparatus for displaying a network topology, the apparatus

2   comprising:

3   means for converting network topology information into a first markup language

4   document, wherein the markup language document is associated with a

5   document type definition that defines how to process information in the

6   markup language document to plot a graph, wherein the markup language

7   document includes

8   graph information specifying display attributes for plotting a first portion of

9   the network topology;

10   network node information, the node information including

11   image information for specifying a graphical image representing a first

12   node for display on a display device,

13   node label information for specifying a node label associated with the

14   graphical image for display on the display device,

15   network node connection information specifying a connection between

16   graphical images and representing a network link between the first

17   node and a second node;

18   means for plotting the first portion of the network topology based on the first markup

19   language document and associated document type definition;

20   means for displaying on the display device, as part of the first portion of the network

21   topology, the graphical image and the node label for the first node, according

22   to the node information and the graph information;

23   means for displaying on the display device, as part of the first portion of the network

24   topology, the connection between the graphical image representing the first

25   node and at least a second graphical image representing the second node,

26   according to the node connection information and the graph information;

27   means for retrieving a second markup language document associated with the

28   document type definition after displaying the graphical image, the node label

29   and the connection, and in response to an interaction with the graphical image

30   representing the first node, wherein the second markup language document

31   corresponds to a second portion of the network topology; and

32   means for causing display of a graph of (a) at least a portion of the first portion and

33   (b) the second portion, without again plotting the first portion of the network

34   topology.

1   26-34. (canceled)

1   35.   (currently amended) An apparatus for displaying a network topology, the apparatus

2   comprising:

3   means for retrieving first topology information from a data source in response to a

4   request for a first graphic display, wherein the first topology information

5   represents a first portion of a network topology that comprises graphical images

6   that represent nodes and connections between nodes;

7   means for converting the first topology information into a markup language document,

8   wherein the markup language document is associated with a document type

9   definition that defines how to process information in the markup language

10   document to plot a graph based on the information;

11   means for plotting a graph of the first portion of the topology, based on the first

12   topology information in the markup language document;

13 means for causing display of the graph of the first portion of the topology on a display

14   device;

15 means for automatically retrieving second topology information from the data source

16   after causing display of the graph of the first portion of the topology and in

17   response to an interaction with a graphical image from the graph of the first

18   portion of the topology, wherein the second topology information represents a

19   second portion of the network topology;

20 means for converting the second topology information into a markup language

21   document associated with the document type definition and plotting a graph of

22   the second portion of the topology based on the second topology information in

23   the markup language document; and

24 means for causing display of a graph of (a) at least a portion of the first portion based on

25   the first topology information and (b) the second portion of the topology based

26   on the second topology information, without retrieving again the first topology

27   information from the data source and plotting again the graph of the first portion

28   of the topology.